

Date: Friday, 03/04/2009 7:39:32 AM
User: Chantal Lavoie

Process Sheet

Customer :	CU-DAR001 Dart Helicopters Services	Drawing Name :	STEP EXTRUSION	
Job Number :	46910			
Estimate Number :	10058			
P.O. Number :		Part Number :	D2622120C	
This Issue :	03/04/2009	S.O. No. :		
Prsht Rev. :	NC	Drawing Number :	D2622 REV C1	
First Issue :	/ /	Project Number :	N/A	
Previous Run :	45494	Drawing Revision :	C1	
Written By :	<u>[Signature]</u>	Material :		
Checked & Approved By :	<u>C809/04/03</u>	Due Date :	17/04/2009	Qty: 120 Um: Each
Comment :	Est. A: 02.11.12 New Issue KJ/RF			

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: PURCHASING

- Issue P/O: 8496
- a) Extrude as per Dwg D2622 Rev. C
 - b) Material: 6061-T6 (QQ-A-200/8)
 - c) Minimum yield tensile strength = 35 ksi
 - d) Minimum ultimate tensile strength = 38 ksi
 - e) Minimum elongation = 8%
 - f) Order at 120" longg) Bon L Canada Inc. tool # 897123 Rev. A
 - h) To be packed per DSK 066
 - i) Pull test to ASTM standard B221 required.
 - j) Material certification is required

C809/04/03

120

2.0	D2622120CP	Extrusion
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 120.0000 Each(s)
Extrusion

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1
Receive & Inspect For Transit Damage
Ensure material certification is attached

09/04/15 123 Hm
09/04/13 123

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK
Inspect dimension per Dwg D2622
Check Pull test per Dwg D2622 for compliance page attached
Check hardness with Webster tester

QSP019
09/04/13 123

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 03/04/2009 7:39:32 AM
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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: STEP EXTRUSION

Job Number: 46910

Part Number: D2622120C

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 008 B1 007 42 = 123 tlm 09/04/15

6.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/04/17

Job Completion



mf
09-04-16

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

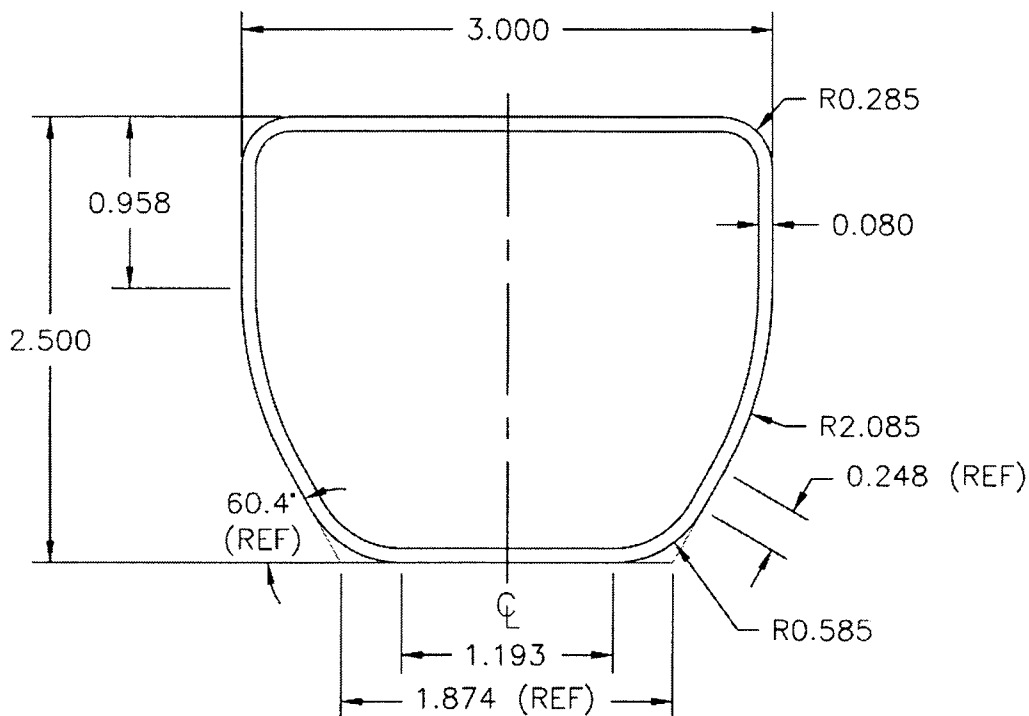
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			


NOTE: Date & initial all entries



DESIGN KE	DRAWN BY GP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED H	APPROVED H	DRAWING NO. D2622	REV. C SHEET 1 OF 1
DATE 02.09.11		TITLE STEP EXTRUSION	SCALE 1:1
A	96.11.29	NEW ISSUE	
B	97.12.12	CHANGE MATERIAL, ADD TOL. QSI	
C	02.09.11	0.080 WAS 0.085; ADD PART & DIE No.	
CI	02.10.04	ADD 'REV. A' TO DIE NUMBER	



D2622-XXX STEP EXTRUSION

- 1) PART NUMBER IS D2622-XXX WHERE 'XXX' IS CUT LENGTH IN INCHES
(EG. D2622-120 IS 120" LONG)
- 2) MATERIAL 6061-T6 (QQ-A-200/8)
- 3) MANUFACTURED USING BON-L DIE # 897123 REV. A 
- 4) A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE MINIMUM MECHANICAL PROPERTIES STATED BELOW:

MINIMUM TENSILE YIELD STRENGTH = 35 ksi
MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi
MINIMUM ELONGATION = 8%

W/O: 46910
C209/04/03

- 5) PART IS SYMMETRIC ABOUT CENTERLINE
6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
7) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

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Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



INVOICING COMPANY AND LOCATION
SIGNATURE ALUMINUM CANADA
500 EDWARD AVENUE
RICHMOND HIL ON L4C 4Y9

SHIPPING MANIFEST

ACCT# 00046024

SHIP TO DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY ON K6A 1K7 CN PHONE 613-632-5200	SOLD TO / PURCHASER DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY ON K6A 1K7 CN PHONE 613-632-5200
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TERMS / FREIGHT
O / P

REFER TO
THESE NUMBERS ON
ALL CORRESPONDENCE

MANIFEST DATE 04-08-09
MANIFEST NUMBER 657532
SALES ORDER NUMBER 46136

CREDIT REP HAMBROOK, PAU 905-508-3250	SALES REP
FIELD SALES REP Kutler A 450-435-6551	CUST SERVICE REP Burton D 905-427-2227

CUSTOMER ID 46024	ORDER DATE 04/03/09	CUSTOMER PO NUMBER 8496	JOB	BILL OF LADING NUMBER 08391012
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ITEM NO.	ORIGINAL ORDER QUANTITY	UNIT	PREVIOUS SHIPPED QUANTITY	MFG. PART NUMBER	ALLOY & TEMPER	FINISH DESCRIPTION	THIS SHIPMENT			UNIT	QUANTITY DUE	
				CUSTOMER PART NUMBER	LENGTH	FABRICATION DESCRIPTION	NBR OF PKGS	GROSS POUNDS	NET QUANTITY			
					CUTTING TOLERANCE	SHIPPING TOLERANCE						
01	121	KG	0	DAA-897123-1	6061 /T6	MILL	2	526	506	KG	0	
		M	0	D2622	120"	CERTIFICATE OF COMP			374.91	M	0	
		PC	0		+3/16 "	(+015-015, 0139-0102)			.123	PC	0	
					-0 "							
					LOT/TKT DETAIL:							
						46136010 / 208131	1	263	253		63. PC	
						46136010 / 208132	1	263	253		60 PC	
											<u>122</u>	

Transportation/Traffic damages and/or shortage claims are to be noted on the delivery copy of sellers shipping manifests and signed and dated below by customers authorized representatives.
No return materials will be accepted for credit without permission. The articles and/or services covered by this shipping manifest were produced in accordance with the fair labor standards act of 1938 as amended. Order accepted subject to the terms and conditions stated on the reverse side.

PAGE 1

2	526	506	KG
		374.91	M
		123	PC
TOTALS			

CUSTOMER ACKNOWLEDGEMENT OF GOODS DELIVERED AND CONDITION

DATE OF DELIVERY

DRIVER

CERTIFICATE OF COMPLIANCE

SIGNATURE ALUMINUM CANADA

500 EDWARD AVENUE
RICHMOND HILL, ON L4C 4Y9

Order Date	Order No.	Order Qty	Page
04/08/09	189768	46136	1
Order No.	Part No.	Lot	Date
8496	08391012	46136010	4/08/09

Sold To	Ship To
46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7	46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7

Item No.	Part No.	Item Description	Quant Part
1.000	DAA-897123-1	120" Mill 6061 T6	D2622
Gross Weight	526 KGS		
Net Qty	506 KG	123 PC	375 M 2 PKG
Specification	Die Desc		
AMS-QQ-A-200/8 & ASTM B221-08			

Mechanical Tests:

Test No.	Tensile MPA / KSI	Yield MPA / KSI	%Elongation	Conductivity	Bend/Drift HREW
1	308.3 / 44.7	270.4 / 39.2	11.3	.0	92

Chemical Analysis:

SI	FE	CU	MN	MG	CR	NI	ZN	GA	V	TI	ZR	OTHER
.65	.30	.27	.05	.90	.06	.007	.04	.000	.010	.02	.000	.00

This will certify that the material described herein has been inspected and tested in accordance with Signature Aluminum Canada's standard sampling and testing procedures or in accordance with the requirements of any specification forming a part of the material description to the extent indicated herein. Data of chemical composition for the material and test results from samples representative of the material are set forth above hereof or in any attachments hereto. This information shows that the material meets the applicable requirements. Inspection and test records are maintained on file. This certificate shall be deemed apart of and subject to the terms and conditions of warranty set forth on the reverse side of our order acknowledgment form. No other warranties are applicable.

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09/04/13

D. VanBake1, QA Manager Signature Aluminum Canada Inc